

Sub 3302  
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--16. A priming device for detonator, comprising:  
an electrical power supply means for timing the action of a firing element of a primer; and  
power generating means capable of generating a power intensity sufficient to actuate the firing element upon expiration of a timing interval, an intensity sufficient to actuate the firing element, the power generating means comprising a capacitor, switching means, and controlling means for controlling the switching means by allowing the capacitor to be charged for a charging time and then discharged, the discharge causing the firing element to act on the primer.--

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--17. The device of claim 16, wherein the control means comprises a microcontroller.--

--18. The device of claim 17, wherein the switching means comprises transistors.--

--19. The device of claim 17, wherein the timing means have programming means for programming the timing interval.--

--20. The device of claim 19, wherein the programming means have at least one code wheel electrically connected to the microcontroller.--

--21. The device of claim 20, wherein the code wheel is luminescent.--

--22. The device of claim 19, wherein the programming means comprises external programming means and information transferring means for transferring programmed data from the external programming means to the microcontroller.--

--23. The device of claim 22, wherein the external programming means comprises an electrical power supply, a microcontroller, a display, and two programming switches.--

--24. The device of claim 22, wherein the information transferring means comprises phototransistors.--

--25. The device of claim 22, wherein the external programming means comprises a microcomputer.--